

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/110286 A1**

(51) International Patent Classification<sup>7</sup>: **A61B 17/34**  
(21) International Application Number:  
PCT/GB2004/002413  
(22) International Filing Date: 7 June 2004 (07.06.2004)  
(25) Filing Language: English  
(26) Publication Language: English  
(30) Priority Data:  
0313730.4 13 June 2003 (13.06.2003) GB

(71) Applicant (for all designated States except US): **SURGICAL INNOVATIONS LIMITED** [GB/GB]; Clayton Park, Clayton Wood Rise, Leeds LS16 6RF (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MORAN, Peter** [GB/GB]; 31 Spring Valley Drive, Bramley, Leeds LS13 4RN (GB). **MORAN, Stuart, Skelton** [GB/GB]; Moor House Farm, Moor Road, Bramhope, Leeds LS16 9HH (GB).

(74) Agent: **BROWNE, Robin, Forsythe**; Urquhart-Dykes & Lord LLP, Tower North Central, Merrion Way, Leeds LS2 8PA (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

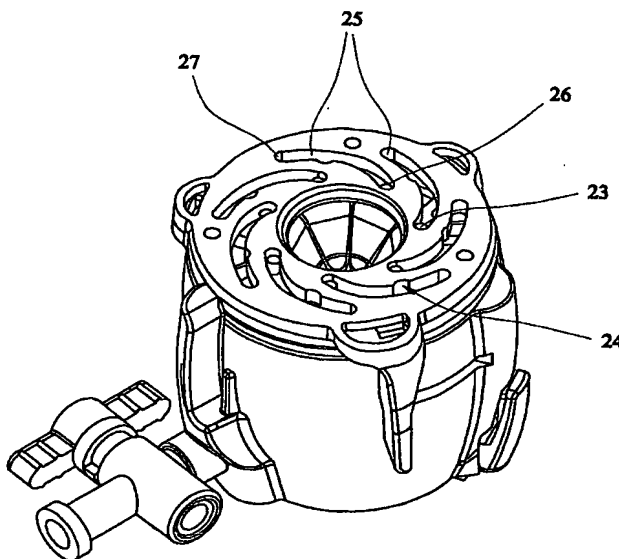
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: **SURGICAL SEAL**



(57) Abstract: A seal for laparoscopic port comprising: a base adapted to engage a cannula, the base including an axial aperture for a surgical instrument, a multiplicity of jaws mounted on the base, the jaws being movable radially with respect to the aperture between an open position wherein a shaft of the surgical instrument may pass freely and a closed position wherein the jaws engage said shaft and provide a restraining force restraining radial movement of the shaft, and an actuator rotatable to urge the jaws to move between said open position and said closed position, wherein the actuator includes a click stop arrangement adapted to provide frictional engagement at a position intermediate the open and closed positions to hold the jaws at the intermediate position.



*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*